

to each of the one or more corresponding pixel level values based on a respective one of the one or more viewing angles associated with each of the pixels.

In contrast, Tomita discloses a liquid crystal display apparatus wherein the visual angle of the panel relative to a viewer is detected to control a voltage impressed on the liquid crystal electrodes. According to Tomita, the luminance or contrast of a seat back mounted liquid crystal display panel is automatically adjusted as a function of the reclining angle of the seat back in order to maintain a substantially constant viewing quality for the viewer of the panel. (See Tomita, col. 1, lines 57-62; col. 3, lines 41-46.)

Anticipation requires that each and every element in the claim be found in a single prior art reference. Tomita discloses that the brightness and contrast of the video signal can be changed by adjusting characteristics of the AC drive waveform. (See Tomita, Fig. 3; col. 2, line 56, to col. 3, line 6.) For example, the pedestal level of the video signal can be changed to adjust the brightness of the display. (See "x" in Fig. 3; col. 2, lines 60-63.) Similarly, the amplitude of the image component of the waveform can be changed to adjust the contrast of the image. (See "y" in Fig. 3; col. 2, lines 64-68.) Thus, any adjustment in brightness or contrast are made uniformly to the signal waveform. This is not the same as the invention as defined by claim 1, which recites applying a respective different correction factor to each of the one or more corresponding pixel level values based on a respective one of the one or more viewing angles associated with each of the pixels. Accordingly, Tomita fails to anticipate Applicants' invention as defined by the claims, and claim 1 is allowable for at least this reason.

Anticipation also requires that the identical invention be shown in as complete detail as is contained in the claim. Tomita compensates for changes in the viewing angle of a display by adjusting the driver waveform to produce corresponding changes in display contrast and brightness. Tomita treats the display as a whole and does not address, let alone compensate for, differences in perceived pixel intensity due to different pixel viewing angles. As noted in Applicants' specification, different portions of a display may be viewed from different viewing angles. For example, pixels in the central portion of a display may be viewed at an angle close to 90°, while pixels closer to the edges of the display may be viewed at more acute angles, resulting in the outermost pixels being perceived as darker in intensity. One

skilled in the art would recognize that applying Tomita's solution of uniformly adjusting the brightness or contrast of the display would result in a "washed-out" (i.e., overly bright) central display region in relation to the rest of the display. On the other hand, Applicants' invention, as defined by claim 1, provides a consistent visual appearance of one or more pixels of a display screen with respect to a viewing position by applying a respective different correction factor to each of the one or more pixel level values based on a respective one of the one or more viewing angles associated with each pixel. Thus, Tomita does not disclose the same invention as defined by Applicants' claims and fails to anticipate claim 1 for at least this additional reason.

Claims 2 and 9 depend from claim 1 and are allowable for at least the same reasons as the base claim. The Action relies on the same reasons for rejecting claims 1, 2, and 9 to support the rejections of claims 15, 16, 23, 29, 30, 37, 40, 41, and 48. Accordingly, Applicants submit that these claims are allowable for at least the same reasons as claims 1, 2, and 9.

Claims 3-8, 10, 11, 17-22, 24, 25, 31-36, 38, 39, 42-47, 49, and 50 were rejected for obviousness over Tomita in view of U.S. Patent No. 6,094,185 to Shirriff. These claims depend from claim 1, 15, 29, or 40, respectively. Accordingly, the rejection of these claims is traversed for at least the same reason as the respective base claim.

Shirriff discloses an apparatus to automatically adjust a computer display parameter, such as brightness or contrast, in response to ambient light conditions. The apparatus includes an ambient light sensor to obtain an ambient light signal. A mapping mechanism, connected to the ambient light sensor, maps the ambient light signal to a user preference value in a user preference table. Computer display control circuitry, connected to the mapping mechanism, then adjusts the selected computer display parameter of the computer display in response to the user preference value. A preferable embodiment of the invention includes colored light sensors that produce colored ambient light signals. The colored ambient light signals are mapped into color preference tables. (See Shirriff, col. 1, line 61, to col. 2, line 8.) Thus, Shirriff adjusts the color components of the display signal based on ambient light and user preferences. Shirriff, like Tomita, does not teach or suggest applying a respective different correction factor to each of the one or more

corresponding pixel level values based on a respective one of the one or more viewing angles associated with each of the pixels. Shirriff fails to cure the defects in Tomita noted above, and claims 3-8, 10, 11, 17-22, 24, 25, 31-36, 38, 39, 42-47, 49, and 50 are allowable over the combination of Tomita and Shirriff.

Claims 12-14, 26-28, and 51-53 were rejected for obviousness over Tomita in view of U.S. Patent No. 6,400,374 to Lanier. These claims depend from claim 1, 15, 29, or 40, respectively. Accordingly, the rejection of these claims is traversed for at least the same reason as the respective base claim.

Lanier discloses a video superposition system that uses sensors to distinguish a foreground object from the background. Because Lanier does not cure the defects noted above with respect to Tomita, claims 12-14, 26-28, and 51-53 are allowable for at least the same reasons as their respective base claim.

Applicants believe the application to be in condition for allowance, and respectfully request notice thereof at an early date. If any issues remain, the Examiner is encouraged to telephone the undersigned at the below-listed number.

Respectfully submitted,

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